

Aero Design Ltd.**Work Order Control Sheet**Work Order#: 2017-94 Date Opened: 31 May 2017 Title: AssemblyAircraft OEM: Airbus Helicopters Aircraft Model: AS350 Product Type: Bike Rack Product Model: Base Quantity: 3 LH / 3RH**Work Order Contents**

Work Order/Build Sheets (Procedures Provided)
 Additional Work Sheets (Standard Practice)
 Drawings (See List Below)
 Parts Distribution Sheet
 Sub Component Tags
 Completed Certification (Original)
 Time Sheet (R&D)
 Notes

Initial or N/A

| |
|-----|
| DM |
| N/A |
| DM |
| DM |
| N/A |
| JC |
| N/A |
| N/A |

Build Sheet Contents

Tasks Initialled
 Dual Inspections Initialled

Initial or N/A

| |
|----|
| JC |
| JC |

Drawing List

| Drawing # | Rev # | Description | Initial or N/A |
|-----------|-------|----------------------|----------------|
| 100215 | 0 | Bike Rack Base Ass'y | DM |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Traveller

Initial or N/A

| |
|--|
| |
| |
| |
| |
| |
| |
| |

Component Completion

Quantity Complete on This Work Order
 Quantity Incomplete on This Work Order
 Further Processing Required Before Release
 Release to Stock as Components

As Instructed

| |
|-------|
| 3 / 3 |
| N/A |
| N/A |
| N/A |

Certification

Form One Completed
 Serviceable (Green) Tag Completed
 In Process (Yellow) Tag Completed
 Unserviceable (Red) Tag Completed
 Parts Placed in Stores for Distribution

Initial or N/A

| |
|-----|
| N/A |
| N/A |
| JC |
| N/A |
| N/A |

Additional Documentation

Documentation of a minor change
 Non-Conformance Report Required
 Service Difficulty Report Required

Initial or N/A

| |
|-----|
| N/A |
| N/A |
| N/A |

Billing

Local (Aero Design)
 Research and Development
 Third Party

Initial or N/A

| |
|-----|
| JC |
| N/A |
| N/A |

Work performed by:

Print: D. Martyn

ICC / Dual Inspection performed by:

Print: J. Clarke

Work Order closed by:

Print: J. Clarke

Approved Manufacturing Facility 73-04

Sign: [Signature]Sign: [Signature]Sign: [Signature]

Form 2017/03

SCA: AD05

SCA: AD01

SCA: AD02

Date: 31-May-17

Date: 31-May-17

Date: 15-Sep-17

Rev. Original 23 Sep 2014



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

In Process

Remarks



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AMF 73-04

Nomenclature: Bike Rack Base No. of pieces: 1 L/H

Manufacturer: Aero Design Ltd.

Part No.: 100215-01 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-94

Remaining Tasks to be Performed: clean up, inspect,
powder coat. ✓

Signature: Ravi D. Praty

Date: May 31 / 2017 Lic. No. / SCA AD-05

In Process



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AMF 73-04

In Process

Remarks



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AMF 73-04

Nomenclature: Bike Rock Base No. of pieces: 1 L/H

Manufacturer: Aero Design Ltd.

Part No.: 100215-01 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-94

Remaining Tasks to be Performed: clean up, inspect,
powder coat. ✓

Signature: David Marty

Date: May 31/2017 Lic. No. / SCA AD-05

In Process



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AMF 73-04

Remarks

In Process

CLEAN-UP + INSPECTION COMPLETE 01 JUNE 2017 ADD2



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AMF 73-04

Nomenclature: Bike Rack Base No. of pieces: 1 R/H

Manufacturer: Aero Design Ltd.

Part No.: 100215-02 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-94

Remaining Tasks to be Performed: clean up, inspect,
powder coat. ✓

Signature: [Signature]

Date: May 31 / 2017 Lic. No. / SCA AD-05

In Process



Aero Design Ltd.

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AMF 73-04

In Process

Remarks

CLEAN UP + INSPECTION COMPLETE 01 JUNE 2017 AD02



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: Bike Rack Base No. of pieces: 1 R/H

Manufacturer: Aero Design Ltd.

Part No.: 100215-02 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-94

Remaining Tasks to be Performed: clean up, inspect,
powder coat. ✓ ✓ ✓

Signature: David Martz

Date: May 31 / 2017 Lic. No. / SCA AD-05

In Process



Aero Design Ltd.

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AMF 73-04

In Process

Remarks

CLEANUP + INSPECTION COMPLETE ON JUNE 2017 ADD



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AMF 73-04

Nomenclature: Bike Rack Base No. of pieces: 1 R/H

Manufacturer: Aero Design Ltd.

Part No.: 100215-02 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-94

Remaining Tasks to be Performed: clean up, inspect,
powder coat.

Signature: David May

Date: May 31 / 2017 Lic. No. / SCA AD-05

In Process



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AMF 73-04

Nomenclature: Bike Rack Base No. of pieces: 1 C/H

Manufacturer: Aero Design Ltd.

Part No.: 100215-01 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-94

Remaining Tasks to be Performed: clean up, inspect,
powder coat.

Signature: David Maitz

Date: May 31/2017 Lic. No. / SCA AD-05

In Process



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Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

In Process

Remarks

Clean up + inspection complete 01 JUNE 2017 A002

For 3 L/H 3 R/H Base

**Aero Design Ltd.
Component Fabrication**

Work Order Number: 2017-94

100215-01 Bicycle Rack Base

Date: May 31/2017

Notes:

Drilling speed to 320 RPM.

Rapid Tap cutting fluid or equivalent coolant required

Rail

Tasks

SCA

| | | |
|----|--|--|
| 1. | Record material PO below | |
| 2. | Cut 78230 step extrusion to 82.75" in length | |
| | On each end, cut the side and bottom walls shorter by 1/8" leaving the tread rail full length IAW drawing 100215 Detail B | |
| 3. | Deburr one end on buffing wheel | |
| 4. | On the bottom wall, place a mark 7/8" from each end and drill 3/8" hole which will act as a drain and allow ventilation during the welding process | |

Manual Mill

| | | |
|----|--|--|
| 5. | While supporting the long end of the rail, clamp aft end (dependant on LH or RH) into the manual mill vice | |
| 6. | Using standard practices, zero off of the end and back of the part and set zero on the X and Y axis on the digital display | |
| 7. | Set table to drill locations IAW drawing 100215 Detail C and bore .75" holes | |
| 8. | Deburr edges and holes | |

Welding

| | | |
|-----|--|--|
| 9. | Wipe parts with Acetone or equivalent solvent | |
| 10. | Place 100226-01 bushings in .75" holes and locate them IAW drawing 100215 Detail C | |
| 11. | Weld IAW drawing 100215 | |
| 12. | Place cap 82720-04 on each end and weld IAW drawing 100215 Detail B | |

Beam

| | | |
|-----|--|--|
| 13. | Cut 1" x 8" 6061-T6 extruded bar to 24 7/8" in length. | |
| 14. | Install material in CNC mill ensuring RH edge overhangs for tool clearance | |
| 15. | Set material stop to ensure subsequent steps and parts return to the same location | |
| 16. | Load and run program 021 and 022 | |
| 17. | Rotate part 180 degrees on plane | |
| 18. | Load and run program 021 and 022 | |
| 19. | Separate parts by cutting along mark scribed during machining process | |

| | | |
|-----|---|--|
| 20. | Install 100230 jig plate into CNC straddling vices and lock down | |
| 21. | Using a soft face hammer, tap the jig down to ensure it is seated | |
| 22. | Zero table using standard practices | |
| 23. | Mount separated part on jig using 1/4" bolts | |
| 24. | Load and run program 023 | |
| 25. | Using vertical band saw, remove tooling lug at the outboard end | |
| 26. | On manual mill, zero off the end of the part using standard machining practices | |
| 27. | Using standard practices, machine surface area from which lug was removed | |
| 28. | Inspect finish and dimensions of final part. | |

Rack Base Assembly

| | | |
|-----|--|-------|
| 29. | Insert Helicoils in threaded bushings IAW drawing 100226 | AD-05 |
| 30. | Install bike rack base beams into jig fixture | AD-05 |
| 31. | Install rails into beams | AD-05 |
| 32. | Weld IAW drawing 100215 | AD-05 |
| 33. | Inspect finish and dimensions of final part. | AD-05 |
| 34. | Tag completed parts IAW Aero Design MPM. | AD-05 |

Material Purchase Order Number _____

Batch Quantity 3 L/H 3 R/H

AD-02

x4

AD-02

x2

9 L/H Br. Rails From WO# 2016-116

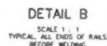
9 R/H Rails From WO# 2016-116

12 Beams From WO# 2016-118

72 Helicoils 3591-4CN375 PO#15042

4043 Alum. TIG. Rod. PO#14056

POWDER COAT PO 17054



1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
2. WELDING OF BOX ALUMINUM TO BE COMPLETED BY OTAW METHOD TO AEROSPACE QUALITY. WELD JOINT SHALL CONFORM TO AMS-2700 (BRASS).
3. FINISH, ALUMINUM PARTS - AFTER WELDING:
 - THOROUGHLY DEGRADE ALKALINE, EPOXY PRIMER AND POLYURETHANE PAINT.
 - THOROUGHLY DEGRADE USING TWO CHEMICAL TREAT COAT BBNB (DEGRASER / IRON PHOSPHATE @ .35 BY VOLUME).
 - POWDER COAT (LIGHT SHEDS) WITH WATER SUPPLY CURE POWDER COAT MATERIAL.
 - AND PROCESS THAT DOES NOT EXCEEDS TEMPERATURE (THE LIGHTS NOTED BELOW).
 - CURE POWDER COATING AT 307° (167°) FOR 20 MINUTES (12 MM).
4. INSTALL PLACARD AFTER SURFACE FINISH IS DRY.

| | | | | | |
|---|--|--|--|---|--|
| BASIC CODE BASH NO: H40 532 (C-EXAMPLE) (DOWNS OF) TO BE EMPLOYED | | APPROVALS DRAWN: EBY CLARKE DESIGNED: JASON REED DATED: 3 JUNE 2004 | | DATE 3 JUNE 2004 AERO DESIGN LTD. 8888A KALAFORD RD WILLOW GROVE, ON CANADA, M6S 3G3 TEL: 905.664.2071 ext 200 www.aerodesign.ca | |
| BASIC CODE BASH NO: H40 532 (C-EXAMPLE) (DOWNS OF) TO BE EMPLOYED | | INITIAL NEW DESIGN (C-EXAMPLE) (DOWNS OF) TO BE EMPLOYED | | ARBUS HELICOPTERS AS350 & AS355 SERIES BICYCLE RACK INSTALLATION RACK BASE FABRICATION DIMENSIONS: APPROVED X.XX ±0.010 X.XX ±0.005 X.XX S.G.T. | |
| BASIC CODE BASH NO: H40 532 (C-EXAMPLE) (DOWNS OF) TO BE EMPLOYED | | INITIAL NEW DESIGN (C-EXAMPLE) (DOWNS OF) TO BE EMPLOYED | | SHEET 1 OF 4 AO 100215 DATE: 3 JUNE 2004 NEW | |